
Promoting Sustainability in the Inyo-Mono Region:
Understanding Regional Groundwater Resources and
Upgrading Infrastructure in Disadvantaged
Community Water Systems

Introduction

This Round 2 Implementation Grant proposal represents a single application submitted on behalf of the Inyo-Mono IRWM Program and requests funding for four projects and administration expenses deemed necessary to successfully complete all grant requirements. The total request grant amount is \$2,234,330. \$402,654 is being contributed by various entities as match funding, to make the total project cost \$2,636,487. Two projects are seeking DAC match waivers, as indicated below, *though all projects address needs of DACs in the region.*

The projects will be funded in the following order, based on a ranking completed by the Inyo-Mono RWMG (asterisk indicates project is seeking a DAC match waiver; see Attachment 10 for more details):

1. Inyo County and Program Office Administration (to be funded at 13% of the grant amount of the final award)
2. Big Pine Fire Protection Improvement Project*
3. Amargosa Basin Water, Ecosystem Sustainability, and Disadvantaged Communities Project
4. Inyo County Disadvantaged Communities Meters Project*
5. Indian Wells Valley Groundwater Basin Brackish Water Resources Study

Below is a summary budget table (Table 8) showing the overall budget for the proposal. Each project's budget follows, in order of the ranking from above, along with a narrative explaining costs of each task or budget category.

Table 8 – Summary Budget

Proposal Title: Promoting Sustainability in the Inyo-Mono Region: Understanding Regional Groundwater Resources and Upgrading Infrastructure in Disadvantaged Community Water Systems

		(a)	(b)	(c)	(d)	(e)
Individual Project Title		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost	% Funding Match (col. b/col. d)
(a)	Inyo County and Program Office Administration	\$257,021.00	\$0	\$0	\$257,021.00	0.00%
(b)	Big Pine Fire Protection Improvement Project**	\$261,584.00	\$13,733.00	\$0	\$275,317.00	4.99%
(c)	Amargosa Basin Water, Ecosystem Sustainability, and Disadvantaged Communities Project	\$549,649.00	\$200,000.00	\$0	\$749,649.00	26.68%
(d)	Inyo County Disadvantaged Communities Meters Project	\$835,276.00	\$78,157.00	\$0	\$913,433.00	8.56%
(e)	Indian Wells Valley Groundwater Basin Brackish Water Resources Study	\$330,800.00	\$110,267.00	\$0	\$441,067.00	25.00%
(i)	Proposal Total (Sum rows (a) through (h) for each column)	\$2,234,330.00	\$402,157.00	\$0	\$2,636,487.00	15.25%
(j)	DAC Funding Match Waiver Total (Sum column (d) only for projects seeking DAC funding match waiver in rows (a) through (h))	\$0	\$0	\$0	\$1,188,750.00	
(k)	Grand Total (Subtract row (j) from row (i) and recalculate column (e) – Funding Match %)	\$2,234,330.00	\$402,654.00	\$0	\$1,447,737.00	27.81%

** The Big Pine Fire Protection Improvement Project is seeking a partial DAC funding match waiver. The portion of the project budget being used for the Big Pine Paiute Tribe, which is a DAC, is \$220,385. No match is budgeted for this portion of the project. The portion of the project benefitting the Big Pine Community Services District, which is not officially a DAC, is \$54,932 and is being matched at 25%.

Inyo County and Program Office Administration

Table 7 – Project Budget					
Proposal Title: Promoting Sustainability in the Inyo-Mono Region: Understanding Regional Groundwater Resources and Upgrading Infrastructure in Disadvantaged Community Water Systems					
Inyo County and Program Office Administration					
Category		(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source* (Funding Match)	(c) Cost Share: Other State Fund Source*	(d) Total Cost
(a)	Direct Project Administration	\$257,021.00	\$0	\$0	\$257,021.00
	Task 1: Administration	\$189,916.00	\$0	\$0	\$189,916.00
	Task 2: Coordinate Inyo-Mono IRWM Plan and provide public relations	\$24,268.00	\$0	\$0	\$24,268.00
	Task 3: Project signage	\$12,851.00	\$0	\$0	\$12,851.00
	Task 4: Final Report	\$29,986.00	\$0	\$0	\$29,986.00
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$257,021.00	\$0	\$0	\$257,021.00

Narrative:

County of Inyo (County) will act as grantee for the Round 2 Implementation Grant for the Inyo Mono Integrated Regional Water Management Program (IRWMP) funded by the Department of Water Resource through Proposition 84.

The County will administer grant funds for up to four (4) implementation projects. In addition, funding is provided for the IRWM Program Office which will assist with implementation and coordination of any projects that are funded. All tasks for this work occur in Budget Category (a) Direct Project Administration.

Task 1: Administration

Costs for this task include Inyo County staff time to draft and execute contracts, provide technical and administrative services, review and process project invoices and reports, disburse funds to project proponents, and coordinate with DWR on all aspects of grant administration. This task also includes funds for the Inyo-Mono IRWM Program Office (\$38,886) to serve as liaison between project proponents and the Inyo-Mono Regional Water Management Group, including coordinating project presentations at RWMG meetings and ensuring financial reporting to the Administrative Committee.

Task 2: Coordinate Inyo-Mono IRWM Plan and provide public relations

The budget for this task includes staff time for Inyo County (\$3,843) and the Inyo-Mono Program Office (\$20,425) to ensure Plan implementation through Round 2 project milestones. This work will also entail providing project updates to local media and coordinate public visits to project sites.

Task 3: Project Signage

The County will coordinate, in conjunction with Inyo-Mono IRWM Program Office and project proponents as needed, the design and purchase of any necessary signage required by DWR and will coordinate the installations of signs.

Task 4: Final Report

The County will coordinate, in conjunction with Inyo-Mono IRWM Program Office and project proponents as needed, the compilation of a final report for submittal to DWR.

Big Pine Fire Protection Improvement Project

Table 7 – Project Budget					
Proposal Title: Promoting Sustainability in the Inyo-Mono Region: Understanding Regional Groundwater Resources and Upgrading Infrastructure in Disadvantaged Community Water Systems					
Project Title: Big Pine Fire Protection Improvement Project					
Project serves a need of a DAC?: Yes (Big Pine Paiute Tribe)					
Funding Match Waiver request?: Yes/partial					
		(a)	(b)	(c)	(d)
	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
(a)	Direct Project Administration	\$17,625.00	\$2,100.00	\$0	\$19,725.00
	Task 1: Administration	\$7,950.00	\$2,100.00	\$0	\$10,050.00
	Task 2: Labor Compliance Program	\$4,500.00	\$0	\$0	\$4,500.00
	Task 3: Reporting	\$5,175.00	\$0	\$0	\$5,175.00
(b)	Land Purchase/Easement	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/Environmental Documentation	\$1,575.00	\$750.00	\$0	\$2,325.00
	Task 4: Final Design	\$525.00	\$500.00	\$0	\$1,025.00
	Task 5: Environmental Documentation	\$1,050.00	\$0	\$0	\$1,050.00
	Task 6: Permitting	\$0	\$250.00	\$0	\$250.00
(d)	Construction/Implementation	\$216,640.00	\$8,376.00	\$0	\$225,016.00
	Task 7: Construction Team Hiring	\$0	\$376.00	\$0	\$376.00
	Task 8: Construction	\$216,640.00	\$8,000.00	\$0	\$224,640.00
(e)	Environmental Compliance/Mitigation/Enhancement	\$0	\$200.00	\$0	\$200.00
	Task 9: Environmental Compliance	\$0	\$200.00	\$0	\$200.00
(f)	Construction Administration	\$4,900.00	\$650.00	\$0	\$5,550.00
	Task 10: Construction Administration	\$4,900.00	\$650.00	\$0	\$5,550.00
(g)	Other Costs	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency	\$20,844.00	\$1,657.00	\$0	\$22,501.00
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$261,584.00	\$13,733.00	\$0	\$275,317.00
<i>*List sources of funding: Big Pine Community Service District will provide matching funds for this project from their operating budget.</i>					

Narrative:**Budget Category (a): Direct Project Administration**

Direct project administration costs were calculated based on expected level of effort by involved staff and costs for equipment and supplies. Direct project administration costs include general project administration tasks (claim preparation, communications with grantee, and BPPT council and BPCSD Board communications), Tribal Employment Rights Ordinance and Labor Compliance Program (LCP) implementation, and reporting (quarterly reports and final report). Also included in this budget category are permit fees and the development of a Program Performance Monitoring Plan to provide a framework for assessment and evaluation of project performance. The BPCSD is providing its portion of this budget category (\$2,100) as match.

Discipline	Hourly Wage	Number of Hours	Total
BPPT Administration	\$45.00	130	\$5,850
Reporting	\$45.00	115	\$5,175
Labor Compliance	\$45.00	100	\$4,500
Project Performance Monitoring Plan	\$35.00	40	\$1,400
BPCSD Admin	\$50.00	40	\$2,000
Encroachment Permit Fees			\$800
Total			\$19,725

Budget Category (b): Land Purchase/Easement

The Big Pine Fire Protection Improvement Project involves the replacement of fire hydrants along the water distribution systems of BPPT and BPCSD; therefore, this project does not require the purchase or lease of land or easements. Inyo County and Bureau of Indian Affairs (BIA) Encroachment Permits will be acquired to work in County and BIA easements.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Planning documents prepared by BPPT and BPCSD are not necessary to implement the Fire Hydrant Replacement Project. BPPT and BPCSD have conducted inventories of their water distribution systems to determine fire hydrant replacement needs, and each organization has designs for fire hydrant installation, so minimal preparation of final design and specifications would be needed to commence the project. A CEQA Categorical Exemption and Tribal Environmental Policy Ordinance (TEPO) Categorical Exclusion will be filed as the project will not have any significant impacts on the environment. The BPCSD portion of this budget category is \$750, and the CSD providing this as match.

Discipline	Task	Hourly Wage	Number of Hours	Total
BPPT Project Manager	Final Specs	\$35.00	15	\$525
BPPT Project	Prepare and File	\$35.00	30	\$1,050

Discipline	Task	Hourly Wage	Number of Hours	Total
Manager	CEQA and TEPO			
BPCSD Operator	Development of Specs/Estimates	\$50.00	10	\$500
BPCSD Board	Project Approval	\$50.00	5	\$250
Total				\$2,325

Budget Category (d): Construction/Implementation

The total cost for Construction/Implementation for this project, which includes hiring of the construction team, is \$225,016. The basis of the estimate is shown in the table below. Quotes were received either through telephone correspondence or written correspondence. Supply costs for concrete, gravel, and miscellaneous supplies were estimated from past hydrant replacements at BPPT. The quotes and estimates were increased by 2% to reflect inflation prior to the implementation of the project. The BPCSD portion of this budget category is \$46,575, \$5,376 of which is being provided as match.

Discipline	Task	Hourly Wage/ Cost	Number of Hours	Total
Equipment Operator	Installation of Fire Hydrants	\$60.00	750	\$45,000
Laborer	Installation of Fire Hydrants	\$45.00	750	\$33,750
Equipment Rental	Jackhammer Backhoe	\$2,193 \$10,895		\$13,088
Replacement Hydrant Supplies	Hydrants Nuts & Bolts Concrete Gravel Misc. Supplies	\$107,939 \$680 \$6,579 \$3,290 \$5,615		\$124,103
New Hydrant Valve Installation Supplies	8x6 Tapping Saddle 6" Water Valve Valve Box Valve Lid PVC Riser Mega Lug 6" PVC Pipe Fill Material Nuts & Bolts	\$4,167 \$48 \$201 \$124 \$52 \$1,108 \$609 \$2668 \$98		\$9,075
Total				\$ 225,016

Budget Category (e): Environmental Compliance/Mitigation/Enhancement

A CEQA Categorical Exemption will be filled for this project, so no mitigation measures will be required; however, the force account crew will restore the fire hydrant replacement sites to initial conditions including replacement of any disturbed turf areas, damaged shrubs or damaged trees. These measures are included as part of the construction cost (Budget Category (d)). The BPCSD portion of this budget category is \$200.

Discipline	Task	Hourly Wage	Number of Hours	Total
BPCSD Operator	Mitigation	\$50.00	4	\$200
Total				\$200

Budget Category (f): Construction Administration

Construction Administration includes construction management services conducted by the project manager to oversee construction of the project. Construction management for this project shall include the review of the force account crew schedule and making recommendations, management and coordination of all project inquiries, management and coordination of all correspondence, maintenance of detailed project records, management of submittals for review, inspection of completed construction, and submission of all project files for archiving. The BPCSD portion of this budget category is \$650.

Discipline	Task	Hourly Wage	Number of Hours	Total
Project Manager	Construction Administration	\$35.00	140	\$4,900
BPCSD Admin	Construction Administration	\$50.00	13	\$650
Total				\$5,550

Budget Category (g): Other Costs

There are no costs for this budget category.

Budget Category (h): Construction/ Implementation Contingency

A 10% construction/implementation contingency will be applied based on the total of Budget Category (d) which is in the amount of \$225,016. Therefore, the contingency amount is \$22,501. The BPCSD portion of this budget category is \$4,657.

Task	Percentage	Construction Cost	Total
Construction Contingency	10%	\$225,016	\$22,501
Total			\$22,501

(i) Grand Total (Sum rows (a) through (h) for each column) Detail

The total estimated cost for Big Pine Fire Protection Improvement Project is \$275,317. The Big Pine CSD is providing a funding match of \$13,733; therefore, \$261,584 is being requested from the Proposition 84 IRWM grant program.

Calculation of Funding Match %

The BPPT is a DAC and does not require a funding match, so the only match provided is associated with the four new hydrants and one replacement hydrant to be installed within the BPCSD service area. The funding match for the Big Pine Fire Protection Improvement Project is \$13,733 or 25% of the BPCSD portion of the project costs (\$54,932). The local match will be funded through in-kind labor and supplies cost from BPCSD. A funding match waiver is being requested for the BPPT portion of the project, and justification for this request is provided in Attachment 10.

Amargosa Basin Water, Ecosystem Sustainability, and Disadvantaged Communities Project

Table 7 – Project Budget

Proposal Title: Promoting Sustainability in the Inyo-Mono Region: Understanding Regional Groundwater Resources and Upgrading Infrastructure in Disadvantaged Community Water Systems

Project Title: Amargosa Basin Water, Ecosystem Sustainability, and Disadvantaged Communities Project

Project serves a need of a DAC?: Yes (Tecopa and Shoshone, CA)

Funding Match Waiver request?: NO

		(a)	(b)	(c)	(d)
Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
(a)	Direct Project Administration	\$35,000.00	\$5,000.00	\$0	\$40,000.00
	Task 1: Administration	\$4,000.00	\$0	\$0	\$4,000.00
	Task 2: Labor Compliance Program	\$4,000.00	\$0	\$0	\$4,000.00
	Task 3: Reporting	\$27,000.00	\$5,000.00	\$0	\$32,000.00
(b)	Land Purchase/Easement	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/Environmental Documentation	\$14,260.00	\$0	\$0	\$14,260.00
	Task 5: Permitting and Environmental Documentation	\$14,260.00	\$0	\$0	\$14,260.00
(d)	Construction/Implementation	\$500,389.00	\$195,000.00	\$0	\$695,389.00
	Task 6: Hydrologic Monitoring	\$47,700.00	\$0	\$0	\$47,700.00
	Task 7: Groundwater Monitoring Wells	\$257,689.00	\$0	\$0	\$257,689.00
	Task 8: Evapotranspiration Investigation	\$195,000.00	\$195,000.00	\$0	\$390,000.00
(e)	Environmental Compliance/Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f)	Construction Administration	\$0	\$0	\$0	\$0
(g)	Other Costs	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$549,649.00	\$200,000.00	\$0	\$749,649.00
*List sources of funding: Funding match will be provided by U.S. Geological Survey.					

Narrative:

Budget Category (a): Direct Project Administration (Tasks 1 through 3)

Direct project administration costs include all invoicing and progress reporting outside of those invoicing and progress reporting costs incurred by the U.S. Geological Survey. U.S. Geological Survey costs for invoicing and progress reporting are incorporated into their Budget Category (d)

Task 8 costs. Labor Compliance Program implementation costs are also included. The budget category also includes costs needed for preparation of the 2015 State of the Basin Report and associated costs for U.S. Geological Survey peer review of that document, as well as the development of a project performance monitoring plan. Total costs for this budget category are \$40,000 and break down as follows:

- Non-U.S. Geological Survey labor \$29,000
- U.S. Geological Survey labor \$10,000
- Miscellaneous report expenses (materials and shipping) \$1,000

Of the \$40,000 for this budget category, \$35,000 is being requested as grant funding, and \$5,000 will be provided as in-kind match from the Amargosa Conservancy staff and board members, and the Inyo County Water Department staff.

Budget Category (b): Land Purchase / Easement

There are no tasks or costs for this budget category.

Budget Category (c): Planning / Design / Engineering / Environmental Documentation

Task 4 – Permitting and Environmental Documentation: The costs for this budget category include costs for Inyo County Environmental Health Department well permitting, and obtaining access agreements and NEPA-related activities (anticipated exemptions based on previous experience for the proposed work) with the U.S. Bureau of Land Management. One of the wells has already been permitted, an access agreement obtained from U.S. Bureau of Land Management, and an encroachment permit obtained from Caltrans. Labor costs also include field survey of area for precise locating of well locations for permitting and for obtaining underground utility clearance. Total costs for this category are \$14,260 and break down as follows:

- Non-U.S. Geological Survey labor \$12,800
- Inyo County Well Permits \$ 1,120
- Miscellaneous expenses \$ 340

Budget Category (d): Construction / Implementation

Task 5 – Hydrologic Monitoring: Hydrologic monitoring costs include those costs for seasonal Amargosa River flow gaging at five locations; spring flow monitoring (flow and field water quality) at the locations described in the scope of work for this task; and groundwater level measurements at the well locations described in the scope of work for this task. The costs for three monitoring events are included. Reporting costs are included in Budget Category (a). Total costs for this category are \$47,700 and break down as follows:

- Non-U.S. Geological Survey labor \$39,900
- Equipment and Supplies \$ 3,000
- Travel \$ 4,800

Task 6 – Groundwater Monitoring Wells: Groundwater monitoring well costs include those costs for well installation of nine groundwater monitoring wells including drilling, oversight by a California Professional Geologist, well development costs, laboratory analyses for general minerals and trace metals, purchase and installation of long-term groundwater level monitoring devices (transducers / data loggers). These costs also include startup monitoring for each well. Given the uncertainty of drilling depths it is anticipated that any available roll-over costs not expended in drilling may be used for additional seasonal monitoring. Total costs for this task are \$257,689 and break down as follows:

• Non-U.S. Geological Survey Labor	\$ 40,300
• CA-Licensed Drilling contractor (for drilling/installation)	\$182,000
• CA-Certified Laboratory (for water sample analysis)	\$ 3,084
• Equipment and Supplies	\$ 20,750
• Travel	\$ 10,675
• Miscellaneous Expenses	\$ 880

Task 7 – Evapotranspiration Investigation: Costs for the evapotranspiration investigation are inclusive of all field investigation work (labor), equipment, travel and laboratory analyses required to completed this work. Also included are U.S. Geological Survey costs for invoicing, progress reporting, and the preparation of a publication summarizing the results of this of this investigation. The total costs for this task are \$390,000 (\$195,000 from this grant, and \$195,000 will be received through federal matching funds from the U.S. Geological Survey) and break down as follows:

• U.S. Geological Survey Labor	\$291,000
• Equipment and Supplies	\$ 49,600
• Laboratory Analyses	\$ 24,400
• Travel	\$ 13,600
• Report Processing	\$ 11,400

Budget Categories (e), (f), (g), and (h)

There are no tasks or costs associated with these budget categories.

Inyo County Disadvantaged Communities Meters Project

Table 7 – Project Budget					
Proposal Title: Promoting Sustainability in the Inyo-Mono Region: Understanding Regional Groundwater Resources and Upgrading Infrastructure in Disadvantaged Community Water Systems					
Project Title: Inyo County Disadvantaged Communities Meters Project					
Project serves a need of a DAC?: Yes (Laws, Independence, and Lone Pine)					
Funding Match Waiver request?: Yes/partial					
Category		(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source* (Funding Match)	(c) Cost Share: Other State Fund Source*	(d) Total Cost
(a)	Direct Project Administration	\$57,682.00	\$16,004.00	\$0	\$73,686.00
	Task 1: Administration	\$57,682.00	\$1,861.00	\$0	\$59,543.00
	Task 2: Labor Compliance Program	\$0	\$8,932.00	\$0	\$8,932.00
	Task 3: Reporting	\$0	\$5,211.00	\$0	\$5,211.00
(b)	Land Purchase/Easement	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/ Environmental Documentation	\$0	\$14,638.00	\$0	\$14,638.00
	Task 4: Development of Project Financing	\$0	\$4,962.00	\$0	\$4,962.00
	Task 5: Development of Project Design	\$0	\$6,451.00	\$0	\$6,451.00
	Task 6: Environmental Documentation	\$0	\$744.00	\$0	\$744.00
	Task 7: Permitting	\$0	\$2,481.00	\$0	\$2,481.00
(d)	Construction/Implementation	\$740,566.00	\$43,421.00	\$0	\$783,987.00
	Task 8: Construction Contracting		\$5,707.00	\$0	\$5,707.00
	Task 9: Construction	\$740,566.00	\$37,714.00	\$0	\$778,280.00
(e)	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f)	Construction Administration	\$0	\$4,094.00	\$0	\$4,094.00
	Task 10: Construction Administration	\$0	\$4,094.00	\$0	\$4,094.00
(g)	Other Costs	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency	\$37,028.00	\$0	\$0	\$37,028.00
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$835,276.00	\$78,157.00	\$0	\$913,433.00
*List sources of funding: Funding match will be provided from the Inyo County General Fund					

Narrative:

The total cost for this project is \$913,433. Inyo County will provide \$78,157 from its General Fund as matching dollars. \$835,276 is being requested as grant funding through this application.

Below is a breakdown of costs by tasks within the appropriate budget categories. The hours identified for the completion of each activity listed within the budget is an estimate based upon prior experience of the Inyo County Public Works Department. The Public Work staff member that will perform the tasks listed below will be an Associate Civil Engineer – Water. The hourly rate for this staff member is \$62.03. Public Works has performed water systems infrastructure installations or improvements in Laws, Independence, Lone Pine, Darwin, and at the Bishop Airport ranging in cost from \$14,000 to \$1.18 million. Other Inyo County staff performing work on this task may include County Counsel and the County Auditor, among others (see Task 1 below). All costs are rounded to the nearest dollar.

Budget Category (a): Direct Project Administration

This budget category includes three tasks, with a total cost of \$73,686. \$16,004 will be provided as match by Inyo County, and \$57,682 is being requested as the grant amount. The costs for this category break down as follows:

Task 1: Administration

- 202 staff hours @ \$62.03/hr. = \$12,543
- Staff hours for this task represent approximately 15% of the expected Public Works staff time needed for the project.
- \$47,000 is budgeted to cover the Inyo County Cost Plan: Auditor's Office, County Counsel, Board Clerk, County CAO Staff, Buildings and Maintenance, etc.

Task 2: Labor Compliance Program

- 144 staff hours @ \$62.03/hr. = \$8,932

Task 3: Reporting

- 84 staff hours @ \$62.03/hr. = \$5,211

Budget Category (b): Land Purchase / Easement

There are no tasks or costs for this budget category.

Budget Category (c): Planning / Design / Engineering / Environmental Documentation

The entire budget for this category (\$14,638) will be provided as matching funds by Inyo County. The costs break down as follows:

Task 4: Development of Project Financing

- 80 staff hours @ \$62.03/hr. = \$4,962

Task 5: Development of Project Design

- 104 staff hours @ \$62.03/hr. = \$6,451

Task 6: Environmental Documentation

- 12 staff hours @ \$62.03/hr. = \$744

Task 7: Permitting

- 40 staff hours @ \$62.03/hr. = \$2,481

Budget Category (d): Construction / Implementation

This category contains the large majority of the costs represented in the budget. The total cost for the category is \$783,987. \$42,429 will be provided by Inyo County as match, and the remainder (\$740,350) is being requested as grant funding.

Task 8: Construction Contracting

- The entire amount of this task (\$5,707) is being provided as match by Inyo County.
- 92 staff hours @ \$62.03/hr. = \$5,707

Task 9: Construction

- The total cost of this task is \$778,280. \$37,714 will be provided by Inyo County as match, and the remainder (\$740,566) is being requested as grant funding and will be performed by an outside contractor.
- 608 staff hours @ \$62.03/hr. = \$37,714. This estimate includes staff time necessary during project construction (approximately six months) to perform daily inspections and complete daily contract documents.
- The table below outlines the expected bid item prices for the project.

Item	Size	Qty	Cost/item	Extended Cost
Electronic read meters	1"	899	\$500.664	\$450,097
Electronic read meters	1.5"	14	\$887.682	\$12,428
Electronic read meters	2"	26	\$923.547	\$24,012
Electronic read meters	3" Comp	2	\$2083.193	\$4,166
Electronic read meters	4"	5	\$2453.792	\$12,269
Electronic read meters	6"l	4	\$4093.000	\$16,372
Handheld Devices	N/A	2	Lump Sum	\$17,303
Handheld Device Software	N/A	N/A	Lump Sum	\$5,506
Billing Software	N/A	N/A	Lump Sum	\$4,494
Convert Old Data	N/A	N/A	Lump Sum	\$8,989

Item	Size	Qty	Cost/item	Extended Cost
Miscellaneous Materials	N/A	N/A	Lump Sum	\$2,912
Box for 1" meter	**	900	\$22.471	\$20,224
Extension for 1" meter	**	900	\$22.471	\$20,224
Lid for 1" meter	**	900	\$89.886	\$80,897
Curb Valve	**	900	\$67.414	60,673
Grand Total				\$740,566

The majority of costs used for estimation purposes in the table above are from 2012 or 2013. Several sources (USA Bluebook, local supply houses) were consulted for material prices. The labor cost per meter for a 1" meter installation (\$100/meter) is based on a 2010 verbal quote of \$80/meter from a local contractor (Hickman Construction, 760-876-9942). All larger meter installation costs are based upon a percentage of the material cost i.e., installation costs increase with larger meters. It is intended that all 1" meter boxes, box extensions, lids, and curb valves will be replaced. The larger meter boxes and associated equipment will not be replaced. Meters larger than 1" will have the top plate removed and replaced with a new one, maintaining the old meter body. The 3" meters are compound meters, combining a 1" and a 3" meter in one body. Miscellaneous materials expected are tailpieces used to connect meters to customer plumbing, meter gaskets, small plumbing fittings etc. The meterboxes will either be Eisel Meterbox #438 or #5F.

Budget Category (e): Environmental Compliance/Mitigation/Enhancement

There are no tasks or costs for this budget category.

Budget Category (f): Construction Administration

Costs for this category all fall under Task 10 (Construction Administration). These costs will be provided by Inyo County as match.

- 66 staff hours @ \$62.03/hr. = \$4,094

Budget Category (g): Other Costs

There are no tasks or costs for this budget category.

Budget Category (h): Construction/Implementation Contingency

The construction contingency is estimated to be five percent of the Task 9 construction expenses (\$740,566) and is being requested as grant funding. The total for the task is \$37,028.

Indian Wells Valley Groundwater Basin Brackish Water Resources Study

Table 7 – Project Budget

Proposal Title: Promoting Sustainability in the Inyo-Mono Region: Understanding Regional Groundwater Resources and Upgrading Infrastructure in Disadvantaged Community Water Systems

Project Title: Indian Wells Valley Groundwater Basin Brackish Water Resources Study

Project serves a need of a DAC?: Yes (Inyokern, Searles Valley, and Pearsonville)

Funding Match Waiver request?: No

		(a)	(b)	(c)	(d)
Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
(a)	Direct Project Administration	\$0	\$42,055.00	\$0	\$42,055.00
	Task 1: Administration	\$0	\$9,055.00	\$0	\$9,055.00
	Task 2: Reporting	\$0	\$33,000.00	\$0	\$33,000.00
(b)	Land Purchase/Easement	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/Environmental Documentation	\$301,600.00	\$57,315.00	\$0	\$358,915.00
	Task 3: Groundwater Basin Delineation Preliminary Analysis	\$16,000.00	\$8,060.00	\$0	\$24,060.00
	Task 4: Groundwater Basin Water Quality Preliminary Analysis	\$15,000.00	\$5,440.00	\$0	\$20,440.00
	Task 5: Identify Data Gaps	\$12,000.00	\$5,720.00	\$0	\$17,720.00
	Task 6: Address Data Gaps	\$207,000.00	\$11,735.00	\$0	\$218,735.00
	Task 7: Analyze Groundwater Basin Flow and Geochemistry	\$35,000.00	\$9,760.00	\$0	\$44,760.00
	Task 8: Deliverables	\$16,600.00	\$16,600.00	\$0	\$33,200.00
(d)	Construction/Implementation	\$0	\$0	\$0	\$0
(e)	Environmental Compliance/Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f)	Construction Administration	\$0	\$0	\$0	\$0
(g)	Other Costs	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency	\$29,200.00	\$10,897.00	\$0	\$40,097.00
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$330,800.00	\$110,267.00	\$0	\$441,067.00

***List sources of funding:** Indian Wells Valley Water District is contributing \$93,127 funding match from its General Fund and \$17,140 funding match in the form of in-kind services (employee labor time) for project administration and reporting. In the event a NEPA cost is incurred, the U.S. Navy or the Bureau of Land Management will contribute a 100% in-kind funding match.

Narrative:

The Indian Wells Valley Water District Board of Directors' mission is to deliver the highest quality water at the best possible price while continuing to serve as respectful stewards of the environment, and its vision is to provide for self-sustaining water resources now and for generations to come. The District's continuing efforts to meet these goals is by promoting water conservation through ordinances, rate structures, the XERIC© (Xeriscape Education, Resource and Idea Corps) Ambassador Program, advertising campaigns, and workshops. Additionally, the Board of Directors has dedicated resources to investigating future sources of water supply including but not limited to brackish water treatment. The Brackish Water project has been divided into five phases:

- Phase I – Feasibility Study (completed in 2007)
- Phase II - Brackish Water Treatment Pilot Project (completed in 2009; used Prop 50 grant funds toward this project)
- Phase III – Brackish Water Resources Study (this project proposal)
- Phase IV – Economic Study
- Phase V – Construction

The budget for the Brackish Water Resources Study Project is \$441,067, and the Indian Wells Valley Water District is requesting \$330,800 in Proposition 84 Implementation Grant funding. IWVWD is committed to contributing \$110,267 in matching funds as follows: \$93,127 from its General Fund and \$17,140 in-kind services (employee labor time). The communities of Inyokern, Searles Valley (Trona, Argus, Pioneer Point, Valley Wells, and West End), and Pearsonville are dependent on the Indian Wells Valley Groundwater Basin for domestic water supplies and are designated as economically disadvantaged, though no match waiver is being sought for this project.

Budget Category (a): Direct Project Administration Costs

The direct Project administration costs are completely supported by funding match (\$42,055). The Indian Wells Valley Water District is contributing \$24,915 funding match from its General Fund and \$17,140 funding match in the form of in-kind services (employee labor time) for Project Administration (Task1) and Reporting (Task 2). The estimated costs are based on the labor time anticipated to be spent by the General Manager, Chief Engineer and Chief Financial Officer on project administration and management of the overall process. This estimate also includes labor time anticipated to be spent by the General Manager, Chief Engineer, Chief Financial Officer and Consultant Hydrogeologist for reporting; design data management; and monitoring, assessment, and performance measurement as outlined in the Work Plan.

Budget Category (b): Land Purchase/Easement

This Project is a feasibility study and does not require the purchase of land or an easement to use the land, so the budget is \$0.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

This Project is a feasibility study, rather than a design or construction project; therefore, the estimated Project costs fall under this budget category. The requested grant funding amount of

\$301,600 will fund approximately 80% of the direct costs to develop the feasibility study. The remaining \$57,315 or 20% of direct costs will be funded by IWWVD from its General Fund. All direct costs for this category will be performed by a consultant versus District staff.

The 80% of direct (or grant) costs are broken down as follows (Total Task dollars are rounded to the nearest hundred):

Task 3: Groundwater Basin Delineation = \$ 16,000

- Project Manager – Primary activities will include reviewing reports and borings. 6 hours at \$170 per hour (\$1,020)
- Senior Engineer/Geologist – Primary activities will include reviewing reports and borings. 50 hours at \$170 per hour (\$8,500)
- Senior Geologist/Geophysicist – Primary activities will include reviewing geophysical data and analysis. 31 hours at \$210 per hour (\$6,510)

Task 4: Groundwater Basin Water Quality Preliminary Analysis = \$15,000

- Senior Hydrologist – Primary activities will include analyzing, mapping, reviewing and reporting data. 19 hours at \$200 per hour (\$3,800)
- Project Manager – Primary activities will include reviewing and reporting data. 2 hours at \$170 per hour (\$340)
- Senior Engineer/Geologist – Primary activities will include analyzing, mapping, reviewing and reporting data. 21 hours at \$170 per hour (\$3,700)
- GIS Analyst – Primary activities will include analyzing and mapping data. 24 hours at \$150 per hour (\$3,600)
- GIS Technician – Primary activities will include reviewing and reporting data. 40 hours at \$90 per hour (\$3,600)

Task 5: Identify Data Gaps = \$12,000

- Senior Hydrologist – Primary activities will include identifying data gaps. 4 hours at \$200 per hour (\$800)
- Project Manager – Primary activities will include identifying data gaps. 2 hours at \$170 per hour (\$340)
- Senior Engineer/Geologist – Primary activities will include identifying data gaps. 30 hours at \$170 per hour (\$5,100)
- Senior Geologist/Geophysicist – Primary activities will include identifying data gaps. 16 hours at \$210 per hour (\$3,360)
- GIS Analyst – Primary activities will include identifying data gaps. 16 hours at \$150 per hour (\$2,400)

Task 6: Address Data Gaps = \$207,000

- Senior Geologist/Geophysicist – Primary activities will include overseeing geophysical gravity and CSAMT tests. 220 hours at \$210 per hour (\$46,200)
- Field Technician – Primary activities will include conducting geophysical gravity and CSAMT tests. 291 hours at \$110 per hour (\$32,010)
- Senior Engineer/Geologist – Primary activities will include overseeing new borings, water quality sampling and aquifer tests. 80 hours at \$170 per hour (\$13,600)
- Geological Technician – Primary activities will include overseeing new borings, water quality sampling and aquifer tests. 180 hours at \$125 per hour (\$22,500)
- Subcontractor – Primary activities will include conducting geophysical gravity tests. (\$35,000)

- Subcontractor – Primary activities will include conducting geophysical CSAMT tests. (\$18,000)
- Lab costs - Water quality sampling 20 samples @ \$425/each (\$8,500)
- Travel Costs – Cost of airfare, vehicle rental and per diem to travel to, from and within the Indian Wells Valley to conduct the geophysics gravity tests, the geophysics CSAMT activities, new borings activities, water quality sampling activities and aquifer tests. (\$16,000)
- Equipment – This budget item includes rentals for gravity equipment for 28 days at \$500/day and a pump and monitor for 4 days @ \$300/day. (\$15,200)

Task 7: Analyze Groundwater Basin Flow and Geochemistry = \$35,000

- Senior Hydrologist – Primary activities will include spatial and temporal analysis. 32 hours at \$200 per hour (\$6,400)
- Chief Modeler – Primary activities will include modeling the basin geochemistry. 51 hours at \$200 per hour (\$10,200)
- Project Manager – Primary activities will include spatial and temporal analysis, and updating the conceptual model. 8 hours at \$170 per hour (\$1,360)
- Senior Engineer/Geologist – Primary activities will include spatial and temporal analysis, updating the conceptual model, and modeling the basin geochemistry. 44 hours at \$170 per hour (\$7,480)
- Senior Geologist/Geophysicist – Primary activities will include updating the conceptual model. 8 hours at \$210 per hour (\$1,680)
- GIS Analyst – Primary activities will spatial and temporal analysis, updating the conceptual model, and modeling the basin geochemistry. 48 hours at \$150 per hour (\$7,200)
- GIS Technician – Primary activities will include modeling the basin geochemistry. 8 hours at \$90 per hour (\$720)

Task 8: Deliverables = \$16,600

- Senior Hydrologist – Prepare final report. 10 hours at \$200 per hour (\$2,000)
- Chief Modeler – Prepare final report. 10 hours at \$200 per hour (\$2,000)
- Project Manager – Prepare final report. 20 hours at \$170 per hour (\$3,400)
- Senior Engineer/Geologist – Prepare final report. 40 hours at \$170 per hour (\$6,800)
- GIS Analyst – Prepare final report. 4 hours at \$150 per hour (\$600)
- GIS Technician - Prepare final report. 20 hours at \$90 per hour (\$1,800)

Budget Category (d): Construction/Implementation

This Project is a feasibility study instead of a construction project, so there are no construction/implementation costs associated with this project.

Budget Category (e): Environmental Compliance/Mitigation/Enhancement

This Project is a feasibility study, and CEQA compliance for this Project will not be required. There is a slight possibility NEPA compliance may be required, but if so, the U.S. Navy or Bureau of Land Management will contribute a 100% in-kind funding match.

Budget Category (f): Construction Administration

There are no construction administration costs associated with this feasibility study. These costs would be incurred if the Project is determined to be feasible and is implemented.

Budget Category (g) Other Costs

No other costs are anticipated for this Project because there are no required licenses or permits.

Budget Category (h) Construction/Implementation Contingency

Although this is not a construction/implementation project, a contingency reserve is included due to uncertainties that may be encountered while performing Task 1 in Budget Category (a) and Tasks 3, 4, 5, 6, 7, and 8 in Budget Category (c). The requested grant funding amount of \$29,200 will fund approximately 73% of the direct costs to develop the feasibility study. The remaining \$10,897 or 27% of direct costs will be funded by IWWWD from its General Fund.